

# ANIMAL HEALTH INFORMATION

## Zoonotic Illnesses of Cats, Dogs and Other Pets

MA Department of Agricultural Resources, Division of Animal Health, Biosecurity and Dairy Services  
251 Causeway Street, Suite 500, Boston, MA 02114 Phone: 617/626-1795 Website: [www.mass.gov/agr](http://www.mass.gov/agr)

### **Zoonoses are diseases transmissible between animals and humans.**

Zoonotic illnesses are either bacterial, viral, fungal or parasitic. They can be very mild to fatal in people. The following is a partial list of some of the diseases birds, cats, dogs, reptiles and rodents kept as pets might pass on to humans. The diseases listed below are those more likely to occur in Massachusetts.

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#### **Cat Scratch Fever (Bartonellosis):**

Cat scratch disease (CSD) is a bacterial disease caused by *Bartonella henselae*. Most people with CSD have been bitten or scratched by a cat and developed a mild infection at the point of injury. Lymph nodes, especially those around the head, neck, and upper limbs, become swollen. Additionally, a person with CSD may experience fever, headache, fatigue, and a poor appetite. Most people get CSD from cat bites and scratches. Kittens are more likely to be infected and to pass the bacterium to people. About 40% of cats carry *B. henselae* at some time in their lives. Cats that carry *B. henselae* do not show any signs of illness; therefore, you cannot tell which cats can spread the disease to you.

#### **Giardia:**

*Giardia lamblia* is a small motile protozoan that inhabits the intestines of mammals and birds. There are many strains of giardia and it is unclear how many are infectious to people. Giardia is the most common form of non-bacterial diarrhea in people in the United States. Children are most commonly affected. Many cases are silent with no overt symptoms. When diarrhea does occur, the illness normally lasts one or two weeks but chronic cases in frail people have lasted for years. Outbreaks due to contaminated water supply occur from time to time in humans.

#### **Hookworms and Roundworms:**

Hookworms and roundworms (*Ancylostoma* and *Ascaris*) are common nematodes of dogs and cats. When a human accidentally eats something contaminated with worm eggs from a pet's stool, the eggs hatch in the intestines and begin migrating throughout that person's body. Worm larva can also burrow through intact skin. Because these parasites were designed to live in dogs and cats, they become lost in the human body – often in the liver or eyes. When this occurs, the disease is called visceral larval migrans. This disease occurs most often in children due to their poor hygienic practices. In the eye the larval nematodes cause inflammation and blindness. In the liver they can cause chills, fever, malaise and an elevated white blood cell count. To prevent this disease, have your pet's stool checked yearly for parasites and feed a monthly heartworm preventative that also kills nematodes.

The eggs of the roundworm of raccoons, *Baliscaris*, are particularly dangerous when ingested by people. If you have neighborhood raccoons, do not leave dog or cat food outside where it will attract them. Keep your trash cans well covered and cap chimneys.

In Massachusetts it is not legal to keep most wildlife species including raccoons, as pets. Only licensed wildlife rehabilitators may legally raise orphaned, injured or sick raccoons and these animals should be wormed.

#### **Leptospirosis:**

There are several species of *Leptospira* that can transfer from animals to man. The organisms are often associated with rats and swine. In mammals they cause a generalized infection that often localizes in the kidneys. Urine from these animals late in the disease is highly infectious. It is passed through contaminated water. In people, signs of leptospirosis include headache, vomiting, muscle pain and, occasionally, hepatitis, meningitis and kidney failure.

## **Parrot Fever, Psittacosis or Ornithosis:**

Parrot fever or *chlamydiosis* is caused by a small intracellular bacteria, *Chlamydia psittaci*, that lives within the respiratory system of birds. A similar organism, which doesn't seem to affect humans, is found in cats. Transmission is through inhalation of dust, dander and nasal secretions of infected birds – especially parrots and turkeys. The flu-like illness that develops ranges from very mild to life-threatening. In rare instances the heart and liver become involved. The disease is often misdiagnosed as influenza.

## **Rabies:**

Any species of warm-blooded animal is susceptible to this disease but the most common carriers in the United States are bats, foxes, raccoons and skunks. The disease is passed by a saliva-contaminated bite. Occasionally the disease will leave its wildlife reservoirs, infecting cats, dogs and cattle. Excellent vaccines exist to protect your pets from this disease.

## **Ringworm:**

Ringworm is not a worm and is not always ring-shaped. It is a slow growing fungus that feeds on dead skin cells and hair of all species of mammal. The most common one, *Microsporum canis*, is common on juvenile cats and dogs where it appears as a dry, oval, scurfy patch of broken off hair. Many of these lesions glow brightly under ultraviolet light. The spores of these fungi often contaminate brushes and cloth that have been in touch with the pet. If these spores come in contact with abraded skin, the fungal infection may transfer to the pet owner.

## **Salmonellosis:**

*Salmonella* are a group of intestinal bacteria that can cause disease in animals and man. In birds and small mammals salmonella causes diarrhea, septicemia (blood infections) and asymptomatic carrier states. People can carry and spread the disease without signs of disease. Common animal carriers of these bacteria are reptiles, rats and mice. People with a robust immune system rarely experience more than severe cramps and diarrhea. However in infants and people with weak immune systems the disease can be life-threatening.

## **Toxoplasmosis:**

Toxoplasmosis is caused by *Toxoplasma gondii*, a small single-celled protozoan. About forty percent of the people in the United States have been exposed to the disease at some point in their lives. The complete life cycle of toxoplasmosis occurs only in cats. These felines become infected by preying on infected birds and rodents. Most cats show no symptoms of disease. In these cats, the organism lives within the cells that line the small intestine. Cats are the only animals that shed this ineffective stage of this protozoan called an oocyst. Most exposures of humans to oocysts cause no overt disease. In a small percentage, however, the oocysts proliferates in many organs of the body causing fever, malaise, enlarged lymph nodes, headache, sore throat and muscle pain. In severe cases the central nervous system, eyes and liver become inflamed. Eating raw or poorly cooked meat of an infected animal is another way this disease is passed on to man. If a woman becomes infected during the later two thirds of pregnancy toxoplasmosis may cause severe fetal abnormalities.

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This information is provided for awareness purposes only. Prepared by Dr. Ronald Hines, DVM, Ph.D. Dr. Hines received his veterinary degree from Texas A&M in 1966. His PhD was earned at Hadassah Medical School, Jerusalem and John's Hopkins University. He is a retired Lt. Col. who was assigned to the National Institutes of Health. He has worked for various humane societies and zoos around the world.



**For more information please contact your local veterinarian.**